

PURPOSE- To establish general guidelines for the handling of civilians and emergency response personnel from a confirmed OR suspected biological agent.

AUTHORITY- All members at the operation level within the fire department are required to follow this guideline. At any incident, the Incident Command will be held responsible for the knowledge and application of this SOP.

DEFINITIONS-

- APR – Air Purifying Respirator
- GPHMT- Greater Palouse Hazardous Materials Team
- MCI- Multi Casualty Incident
- NBC- Nuclear, Biological, Chemical
- RRPASS – WMD powered positive pressure APR (further definition to come)
- Sodium hypochlorite or hypochlorite - bleach

GENERAL PROVISIONS-

In general, it should be recognized that there is more than ever the likelihood that a biological weapon could be developed and deployed. Any incident, small in size to a large MCI, where there is an unexplained illness overtaking civilians and/or emergency responders, should be heavily scrutinized for the possibility of a NBC incident.

1. PPE

- a. Crews that are dispatched or encounter a situation that may be a NBC incident shall NOT respond directly to the scene nor shall they take their typical response routes. Crews shall select a staging location that will serve as a good vantage point from which they can conduct reconnaissance.
- b. If it happens that a crew is involved in a scene prior to them learning of the possibility of NBC and the crews are potentially contaminated, they shall begin decontamination immediately. While one or more members are setting up for emergency decon, the IC shall notify Whitcom of the situation and shall call for additional units. Once another fire department member is on scene (staged), command shall immediately be passed to this individual.
- c. Firefighter structural turnouts provide no protection against NBC weapons. The only part of the firefighter PPE that provides any protection is the SCBA. Firefighters shall not rely on structural gear to provide protection. Firefighter time on scene is best used by setting up mass decon. Officers on scene shall establish the necessary framework for a large and timely incident.
- d. Recon will always be done from a distance by using binoculars spotting scopes or other appropriate sensing devices. Staging areas shall always be upwind and updrift with the apparatus positioned facing away from the

Response & Decon Procedures for Biological Agents

incident. Witnesses may be able to provide on site information, but keep them at a distance for they are potentially contaminated.

- e. Per CDC guidelines, SCBA with Level A protection is required when responding to a suspected biological incident where any of the following are unknown or uncontrolled:
  - 1. The type(s) of airborne agent(s)
  - 2. The dissemination method
  - 3. If dissemination via an aerosol-generating device is still occurring or it has stopped but there is no information on the duration of dissemination, or what the exposure concentration might be.
- f. Per CDC guidelines, SCBA with Level B protection for:
  - 1. The suspected biological aerosol is no longer being generated
  - 2. Other conditions may present a splash hazard
- g. Per CDC guidelines, responders may use full facepiece respirators with P100 filter or powered air-purifying respirator with HEPA filters if it can be determined that:
  - 1. An aerosol-generating device was not used to create high airborne concentration
  - 2. Dissemination was by a letter or package that can be easily bagged.
- h. Responders trained to the Operations Level who are trained in the RRPASS system shall wear and use such device. Emergency responders not trained in the use of the RRPASS system shall either remain outside the hazard zone(s) or shall wear and use SCBA with appropriate PPE.

2. Respirator Protection and Selection

- a. When responding to a known or suspected NBC incident, firefighters shall wear SCBA's until the agent has been identified by the GPHMT.
  - 1. Responder safety is of highest concern, therefore during the initial stages of an incident first arriving crews are to establish the command framework and isolate and deny entry/exit.
  - 2. Crews should still wear full PPE while at the same time avoiding contact with potentially contaminated victims.
  - 3. Use fire line tape to designate zones and holding areas.
  - 4. Though fire crews cannot unlawfully detain contaminated individuals and force them to go through decontamination, they should strongly urge the individual(s) after explaining the potential consequences.

3. Recruit law enforcement assistance if necessary.

- a. If calling for law enforcement due to contaminated individuals leaving the scene, the IC shall call for the Whitman County Department of Health official to respond to the scene as this individual is the only one who can lawfully require and individual to be detained and decontaminated.
- b. Members of the GPHMT shall research and consult with at least 3 sources for respiratory protection. If a lower level of respiratory protection than

SCBA is acceptable, then such measures shall be put into place. By using an APR, crews will be able to operate in for longer periods of time without having to change bottles and will experience less fatigue.

4. Staging

- a. When responding to a suspected or known NBC incident, all PFD vehicles shall stage 4 blocks from the incident. Recon shall be completed prior to any units being sent closer to the site.
- b. Recon resources shall be coordinated or relayed to Pullman Police Department units on scene either face-to-face, via radio, or through Whitcom.
- c. When staging, apparatus drivers and their officers shall pay careful attention to the location of nearby structures that could house secondary devices.
- d. Unless otherwise directed, first-in apparatus shall not stage at the same location. This will be done for multiple reasons.
  1. Lessens the potential effects of secondary devices
  2. Scene size-up can be completed without having to cover large areas (radio communication between officers)
  3. Victims can be contained and directed from multiple points.

5. Law Enforcement/FBI

- a. For any potential NBC incident, the officer in charge shall ensure that a law enforcement agency is responding. Ultimately the FBI will need to be summoned, but during the initial moments of the incident, local law enforcement will be utilized.
  1. Do not assume that the local law enforcement agency has summoned the FBI.
- b. While setting up the initial command structure, consider the need for establishing a unified command from the beginning of the incident.

6. Hospitals

- a. The Incident Commander shall ensure that the local area hospitals are notified of the potential developing situation.
  1. All receiving hospitals as well as those within a 50 mile radius shall be notified of the incident.
- b. The Whitman County Department of Health shall be notified and requested to respond to the command post.

7. Mass Decon

- a. Should the initial responding units encounter an MCI from a potential NBC attack, mass casualty decontamination procedures shall be implemented.
  1. See attachment on mass casualty decontamination. (*coming in future*)
- b. Because of the urgency of the situation, runoff water containment is not an issue.
- c. The Greater Palouse Hazardous Materials Team shall be contacted for advisement.

- d. At no time shall responders contact any contaminated individual.
- e. Responders shall wear full PPE including and using SCBA.
- 8. Decontamination
  - a. Dermal contact with a suspected biological warfare agent should be immediately treated by soap and water decon. A soft brush shall be used to ensure mechanical loosening from the skin surfaces, followed by copious amounts of water rinsing. Impacted areas should be washed with 0.5% sodium hypochlorite solution for 10 to 15 minutes.
  - b. The sodium hypochlorite solution must be made fresh that day to be effective.
- 9. Equipment Decon
  - a. Using appropriate PPE, equipment can be decontaminated by using soap and water, and 0.5% hypochlorite solution (one part bleach to 10 parts water).
  - b. Contaminated fabric clothing and expendable PPE and equipment shall not be decontaminated. These items shall be left on scene to be handled by a private contractor or another agency outside of the fire department.

From the United States Army Institute of Infection Diseases:

- Anthrax – soap and water, then 0.5% hypochlorite, then soap and water again (instruments - bleach or iodine)
- Q-Fever – 0.5% hypochlorite solution or soap and water
- Botulism – 0.5% hypochlorite or soap and water
- Variola (Smallpox) – no field decon, place in strict isolation. Autoclave, boil, or burn anything that came into contact with patients
- Brucellosis – 0.5% hypochlorite solution
- Ricin – 0.5% hypochlorite
- Venezuelan Equine Encephalitis (VEE) – 0.5% hypochlorite, heat (80 C for 30 minutes).
- Smallpox – Strict quarantine with respiratory isolation

Sources:

- [www.nbc-med.org](http://www.nbc-med.org)
- CDC
- Washington State DOH – Biological and Chemical Agent Response Information for WA EMS Personnel